

	Type	L #	Hits	Search Text	DBs
1	BRS	L1	3	prothrombin same thrombin same (polyclonal or antiserum or antisera) same (absorb\$2 or absorption)	USPAT
2	BRS	L2	3	prothrombin same thrombin same (polyclonal or antiserum or antisera) same (absorb\$2 or absorption)	USPAT
3	BRS	L3	1	prothrombin same thrombin same (polyclonal or antiserum or antisera) same pivka	USPAT
4	BRS	L5	13	pivka	USPAT

	Time Stamp	Comments	Error Definition	Errors
1	2003/09/23 15:04			0
2	2003/09/23 15:16			0
3	2003/09/23 15:17			0
4	2003/09/23 15:18			0

Welcome to DIALOG

Dialog level 03.02.02D

Logon file001 23sep03 14:47:36

? ds

Set	Items	Description
S1	0	(PIVKA OR DES(2A)CARBOXYPROTHROMBIN) AND (POLYCLONAL OR AN-TISERUM OR ANTISERA) AND (ABSORP? OR ABSORB?)
S2	990	(PIVKA OR DES(2W)CARBOXYPROTHROMBIN)
S3	14	S2 AND (POLYCLONAL OR ANTISERUM OR ANTISERA)
S4	8	RD (unique items)
S5	77	S2 AND MONOCLONAL
S6	2	S5 AND S3
S7	75	S5 NOT S3

? logoff y

23sep03 14:52:55 User219516 Session D555.4

Logoff: level 03.02.02 D 14:52:55

Welcome to DIALOG

Logon file001 23sep03 16:20:08

? ds

Set	Items	Description
S1	874	PIVKA OR HYPOCARBOXYLATED(W)PROTHROMBIN
S2	0	S1 AND THROMBIN(3N)INTERFERENCE
S3	0	S1 AND FIBRIN(3N)INTERFERENCE
S4	0	S1 AND INTERFERENCE(5N)THROMBIN
S5	0	S1 AND THROMBIN(5N)CROSS(W)REACT?
S6	0	S1 AND FIBRIN(5N)CROSS(W)REACT?

? logoff y

23sep03 16:24:55 User219516 Session D557.3

Logoff: level 03.02.02 D 16:24:55

02676917 BIOSIS NO.: 000067064986

ANTIBODIES DIRECTED AGAINST A GAMMA CARBOXY GLUTAMIC-ACID-RICH REGION OF

BOVINE PROTHROMBIN PREPARATION ISOLATION AND CHARACTERIZATION

AUTHOR: FURIE B; PROVOST K L; BLANCHARD R A; FURIE B C

AUTHOR ADDRESS: HEMATOL. SECT., TUFTS-N. ENGL. MED. CENT., TUFTS UNIV. SCH.

MED., BOSTON, MASS. 02111, USA.

JOURNAL: J BIOL CHEM 253 (24). 1978 (RECD. 1979). 8980-8987. 1978

FULL JOURNAL NAME: Journal of Biological Chemistry

CODEN: JBCHA

RECORD TYPE: Abstract

LANGUAGE: ENGLISH

ABSTRACT: Antibodies directed against the .gamma.-carboxyglutamic acid-rich region of prothrombin were isolated from antisera raised in rabbits immunized with native bovine prothrombin. Antibodies prepared against prothrombin were fractionated by sequential immunoabsorption using prothrombin and prothrombin fragments to yield a population of antibodies specific for the region of prothrombin from amino acid residue 12 to residue 44. The anti-(12-44)N antibodies formed soluble complexes with prothrombin and inhibited the conversion of prothrombin to thrombin in plasma. The anti-(12-44)N antibodies were Ig[immunoglobulin]G immunoglobulins that were heterogeneous with regard to charge and affinity for prothrombin. Anti-(12-44)N antibodies contained high affinity and low affinity antibody subpopulations which bound prothrombin with an average K_{assoc} of $2.6 \times 10^7 \text{ M}^{-1}$. Anti-(12-44)N was metal-dependent and bound prothrombin strongly only in the presence of CaCl_2 . Prothrombin and fragment 1 competed equally with ^{125}I -labeled prothrombin for anti-(12-44)N, but a 250-fold molar excess of fragment 12-44 to prothrombin and a 100-fold molar excess of abnormal prothrombin (des-.gamma.-carboxyprothrombin) to prothrombin were required to inhibit 50% of the prothrombin from binding anti-(12-44)N. .gamma.-Carboxyglutamic acid did not compete with prothrombin for anti-(12-44)N. Anti-(12-44)N antibodies appeared to be conformationally specific for the native format of the region 12-44 in prothrombin and cross-react poorly with the region 12-44 in prothrombin and cross-react poorly with the region 12-44 in abnormal prothrombin. Some of these antibodies were directed against an antigenic determinant whose geometry was Ca(II) -dependent. The Ca(II) -dependent structural transition of prothrombin apparently involves, in part, alteration of the tertiary structure of the region 12-44.

02676917 BIOSIS NO.: 000067064986

ANTIBODIES DIRECTED AGAINST A GAMMA CARBOXY GLUTAMIC-ACID-RICH REGION OF

BOVINE PROTHROMBIN PREPARATION ISOLATION AND CHARACTERIZATION

AUTHOR: FURIE B; PROVOST K L; BLANCHARD R A; FURIE B C

AUTHOR ADDRESS: HEMATOL. SECT., TUFTS-N. ENGL. MED. CENT., TUFTS UNIV. SCH.

MED., BOSTON, MASS. 02111, USA.

JOURNAL: J BIOL CHEM 253 (24). 1978 (RECD. 1979). 8980-8987. 1978

FULL JOURNAL NAME: Journal of Biological Chemistry

CODEN: JBCHA

RECORD TYPE: Abstract

LANGUAGE: ENGLISH

ABSTRACT: Antibodies directed against the .gamma.-carboxyglutamic acid-rich region of prothrombin were isolated from antisera raised in rabbits immunized with native bovine prothrombin. Antibodies prepared against prothrombin were fractionated by sequential immunoabsorption using prothrombin and prothrombin fragments to yield a population of antibodies specific for the region of prothrombin from amino acid residue 12 to residue 44. The anti-(12-44)N antibodies formed soluble complexes with prothrombin and inhibited the conversion of prothrombin to thrombin in plasma. The anti-(12-44)N antibodies were Ig[immunoglobulin]G immunoglobulins that were heterogeneous with regard to charge and affinity for prothrombin. Anti-(12-44)N antibodies contained high affinity and low affinity antibody subpopulations which bound prothrombin with an average K_{assoc} of $2.6 \times 10^7 \text{ M}^{-1}$. (12-44)N was metal-dependent and bound prothrombin strongly only in the presence of CaCl_2 . Prothrombin and fragment 1 competed equally with ^{125}I -labeled prothrombin for anti-(12-44)N, but a 250-fold molar excess of fragment 12-44 to prothrombin and a 100-fold molar excess of abnormal prothrombin (des-.gamma.-carboxyprothrombin) to prothrombin were required to inhibit 50% of the prothrombin from binding anti-(12-44)N. .gamma.-Carboxyglutamic acid did not compete with prothrombin for anti-(12-44)N. Anti-(12-44)N antibodies appeared to be conformationally specific for the native format of the region 12-44 in prothrombin and cross-react poorly with the region 12-44 in prothrombin and cross-react poorly with the region 12-44 in abnormal prothrombin. Some of these antibodies were directed against an antigenic determinant whose geometry was Ca(II) -dependent. The Ca(II) -dependent structural transition of prothrombin apparently involves, in part, alteration of the tertiary structure of the region 12-44.